

# PERFORMANCE CHARACTERISTICS



Tensotherm™ insulated translucent membrane roofing material can be specified to achieve specific thermal insulation, light transmission, or acoustic dampening characteristics. This is accomplished by specifying the thickness of Tensotherm's Lumira™ aerogel core material, from 8mm to 64mm, and by selecting either a vapor barrier liner or an acoustic liner material. Tensotherm's outer skin is PTFE fiberglass with a TiO<sub>2</sub> coating. The enclosed chart details key performance characteristics of Tensotherm according to these variables.

ROOFING FOR LIVING™

# TENSOTHERM™ PERFORMANCE CHARACTERISTICS

	Fire ASTM E108 Class A	Fire ASTM E84 Flame Spread / Smoke Density	Fire DIN EN 13501-1 Class B, s1	Permeability ASTM E96 - Max.	Permeability ASTM E96 - Min.	R Value (hrft <sup>2</sup> /BTU) ASTM C518	U Value (W/m <sup>2</sup> K) ASTM C518	% Light Transmittance - Max.	% Light Transmittance - Min.	Unit Weight (psf) Max.	Unit Weight (psf) Min.	Unit Weight (kg/m <sup>2</sup> ) Max.	Unit Weight (kg/m <sup>2</sup> ) Min.	System Thickness (in) Max.	System Thickness (in) Min.	System Thickness (mm) Max.	System Thickness (mm) Min.
<b>8mm LUMIRA COMBINATIONS</b> PTFE Fiberglass Structural Outer / Vapor Barrier Liner	Pass	0 max	Pass	4.8	0.08	3.13	1.82	4.64%	1.83%	0.76	0.42	3.71	2.05	0.39	0.35	9.8	9.0
PTFE Fiberglass Structural Outer / Acoustic Liner	Pass	0 max	Pass	NA	NA	2.90	1.96	5.24%	3.35%	0.67	0.39	3.27	1.90	0.39	0.35	10.0	9.0
<b>16mm LUMIRA COMBINATIONS</b> PTFE Fiberglass Structural Outer / Vapor Barrier Liner	Pass	0 max	Pass	4.8	0.08	5.29	1.07	3.94%	1.60%	0.88	0.54	4.30	2.64	0.70	0.67	17.8	17.0
PTFE Fiberglass Structural Outer / Acoustic Liner	Pass	0 max	Pass	NA	NA	4.83	1.18	4.38%	2.91%	0.79	0.51	3.86	2.49	0.71	0.67	18.0	17.0
<b>24mm LUMIRA COMBINATIONS</b> PTFE Fiberglass Structural Outer / Vapor Barrier Liner	Pass	0 max	Pass	4.8	0.08	7.46	0.76	2.56%	1.02%	1.00	0.66	4.88	3.22	1.02	0.98	25.8	25.0
PTFE Fiberglass Structural Outer / Acoustic Liner	Pass	0 max	Pass	NA	NA	6.77	0.84	2.58%	1.88%	0.91	0.63	4.44	3.08	1.02	0.98	26.0	25.0
<b>32mm LUMIRA COMBINATIONS</b> PTFE Fiberglass Structural Outer / Vapor Barrier Liner	Pass	0 max	Pass	4.8	0.08	9.62	0.59	2.31%	0.94%	1.12	0.78	5.47	3.81	1.33	1.30	33.8	33.0
PTFE Fiberglass Structural Outer / Acoustic Liner	Pass	0 max	Pass	NA	NA	8.70	0.65	2.48%	1.72%	1.03	0.75	5.03	3.66	1.34	1.30	34.0	33.0
<b>40mm LUMIRA COMBINATIONS</b> PTFE Fiberglass Structural Outer / Vapor Barrier Liner	Pass	0 max	Pass	4.8	0.08	11.78	0.48	1.51%	0.61%	1.24	0.90	6.05	4.39	1.65	1.61	41.8	41.0
PTFE Fiberglass Structural Outer / Acoustic Liner	Pass	0 max	Pass	NA	NA	10.63	0.53	1.52%	1.14%	1.15	0.89	5.61	4.35	1.65	1.61	42.0	41.0
<b>48mm LUMIRA COMBINATIONS</b> PTFE Fiberglass Structural Outer / Vapor Barrier Liner	Pass	0 max	Pass	4.8	0.08	13.95	0.41	1.42%	0.57%	1.36	1.02	6.64	4.98	1.96	1.93	49.8	49.0
PTFE Fiberglass Structural Outer / Acoustic Liner	Pass	0 max	Pass	NA	NA	12.57	0.45	1.47%	1.08%	1.27	0.99	6.20	4.83	1.97	1.93	50.0	49.0
<b>56mm LUMIRA COMBINATIONS</b> PTFE Fiberglass Structural Outer / Vapor Barrier Liner	Pass	0 max	Pass	4.8	0.08	16.11	0.35	0.93%	0.37%	1.48	1.14	7.23	5.57	2.28	2.24	57.8	57.0
PTFE Fiberglass Structural Outer / Acoustic Liner	Pass	0 max	Pass	NA	NA	14.50	0.39	0.93%	0.73%	1.39	1.11	6.79	5.42	2.28	2.24	58.0	57.0
<b>64mm LUMIRA COMBINATIONS</b> PTFE Fiberglass Structural Outer / Vapor Barrier Liner	Pass	0 max	Pass	4.8	0.08	18.28	0.31	0.60%	0.23%	1.60	1.26	7.81	6.15	2.59	2.56	65.8	65.0
PTFE Fiberglass Structural Outer / Acoustic Liner	Pass	0 max	Pass	NA	NA	16.43	0.35	0.60%	0.47%	1.51	1.23	7.37	6.01	2.60	2.56	66.0	65.0

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